

FIG. 1

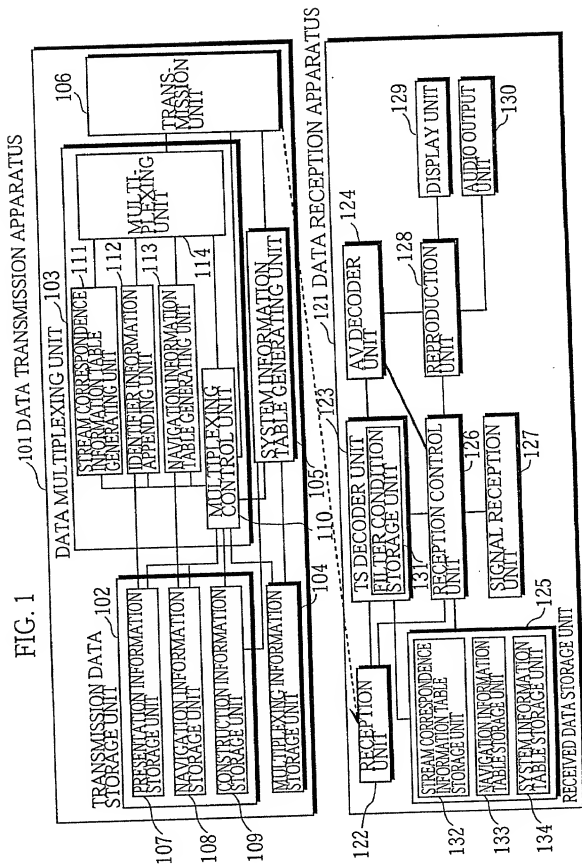


FIG. 2

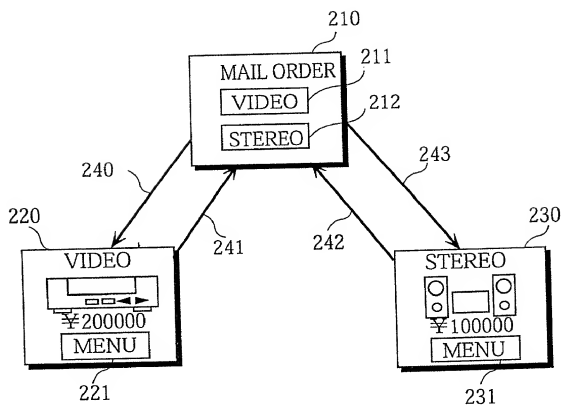


FIG. 3

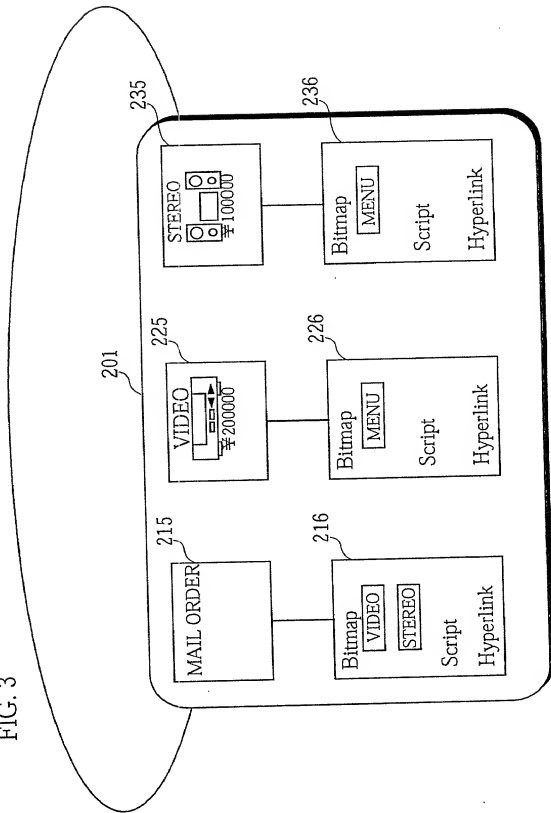






FIG. 6

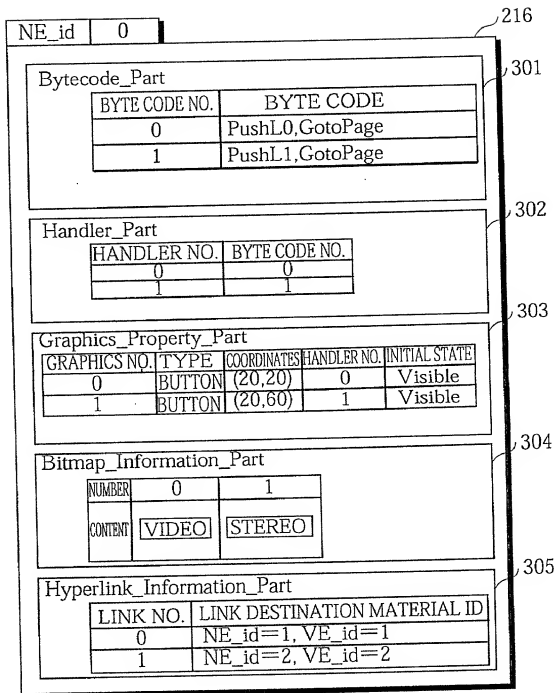


FIG. 7

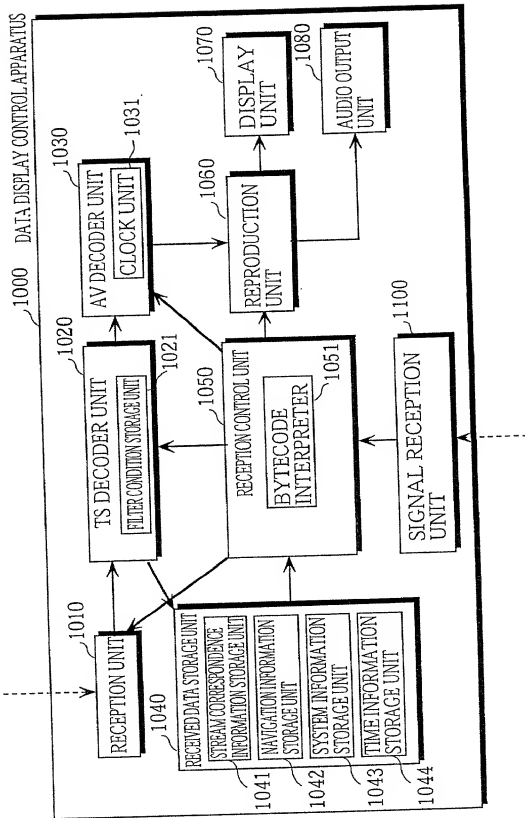


FIG. 8

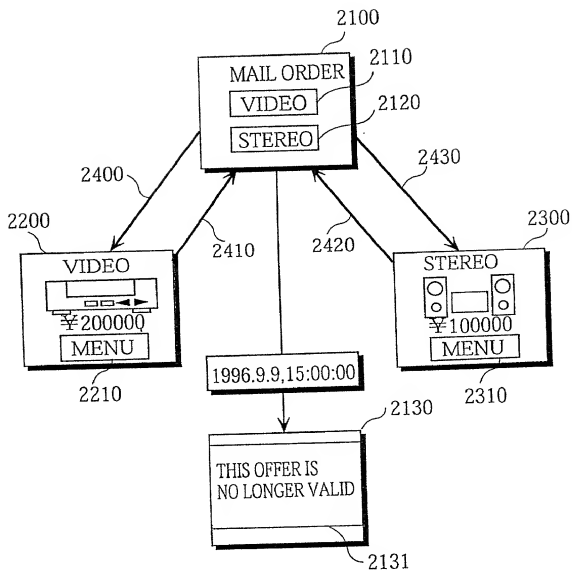




FIG. 9

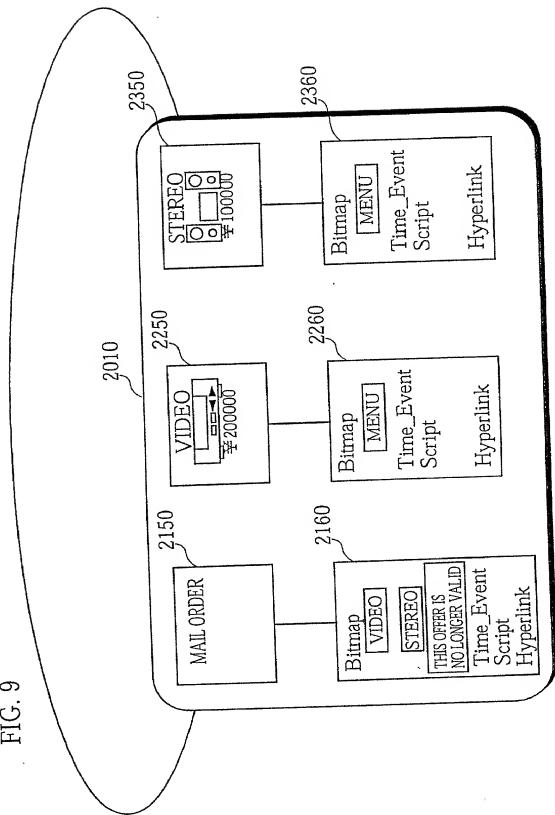


Fig. 10

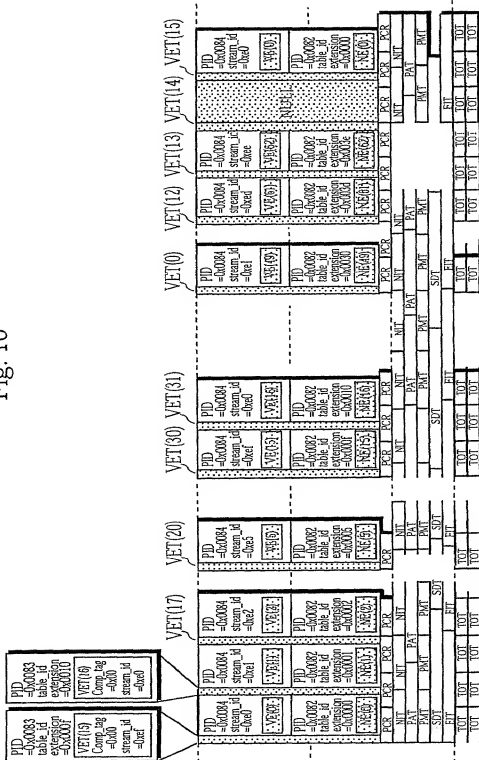


FIG. 11

NE_id	0					2160
Time_Event_Part						2161
		ACTIVATE TIME	HANDLER NO.			
		1996.9.9,15 : 00 : 00	2			
Bytecode_Part						2162
		BYTECODE NO.	BYTECODE			
		0	PushL0,GotoPage			
		1	PushL1,GotoPage			
		2	PushL2,PushL1,SetGraphicVisibility, PushL0,PushL0,SetGraphicVisibility, PushL1,PushL0,SetGraphicVisibility			
Handler_Part						2163
		HANDLER NO.	BYTECODE NO.			
		0	0			
		1	1			
		2	2			
Graphics_Property_Part						2164
		GRAPHICS NO.	TYPE	COORDINATES	HANDLER NO.	INITIAL STATE
		0	BUTTON	(20,20)	0	Visible
		1	BUTTON	(20,60)	1	Visible
		2	BUTTON	( 0,20)	NONE	Invisible
Bitmap_Information_Part						2165
		NUMBER	0	1	2	
		CONTENT	VIDEO	STEREO	THIS OFFER IS NO LONGER VALID	
Hyperlink_Information_Part						2166
		LINK NO.	LINK DESTINATION MATERIAL ID			
		0	NE_id=1, VE_id=1			
		1	NE_id=2, VE_id=2			

FIG. 12

NE_id	1		2260										
<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> Time_Event_Part </div> <div style="text-align: center; padding: 20px 0;">NOT WRITTEN</div>			2261										
<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> Bytecode_Part </div> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="width: 30%; padding: 5px;">BYTECODE NO.</th> <th style="width: 70%; padding: 5px;">BYTECODE</th> </tr> <tr> <td style="text-align: center; padding: 5px;">0</td> <td style="padding: 5px;">PushL0,GotoPage</td> </tr> </table>			BYTECODE NO.	BYTECODE	0	PushL0,GotoPage	2262						
BYTECODE NO.	BYTECODE												
0	PushL0,GotoPage												
<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> Handler_Part </div> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="width: 50%; padding: 5px;">HANDLER NO.</th> <th style="width: 50%; padding: 5px;">BYTECODE NO.</th> </tr> <tr> <td style="text-align: center; padding: 5px;">0</td> <td style="text-align: center; padding: 5px;">0</td> </tr> </table>			HANDLER NO.	BYTECODE NO.	0	0	2263						
HANDLER NO.	BYTECODE NO.												
0	0												
<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> Graphics_Property_Part </div> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="width: 15%; padding: 5px;">GRAPHICS NO.</th> <th style="width: 15%; padding: 5px;">TYPE</th> <th style="width: 20%; padding: 5px;">COORDINATES</th> <th style="width: 15%; padding: 5px;">HANDLER NO.</th> <th style="width: 35%; padding: 5px;">INITIAL STATE</th> </tr> <tr> <td style="text-align: center; padding: 5px;">0</td> <td style="padding: 5px;">BUTTON</td> <td style="padding: 5px;">(20,60)</td> <td style="text-align: center; padding: 5px;">0</td> <td style="padding: 5px;">Visible</td> </tr> </table>			GRAPHICS NO.	TYPE	COORDINATES	HANDLER NO.	INITIAL STATE	0	BUTTON	(20,60)	0	Visible	2264
GRAPHICS NO.	TYPE	COORDINATES	HANDLER NO.	INITIAL STATE									
0	BUTTON	(20,60)	0	Visible									
<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> Bitmap_Information_Part </div> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 30%; padding: 5px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">NUMBER</td> <td style="width: 50%; padding: 5px; text-align: center;">0</td> </tr> <tr> <td style="padding: 5px;">CONTENT</td> <td style="padding: 5px; text-align: center;">MENU</td> </tr> </table> </td> <td style="width: 70%;"></td> </tr> </table>			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">NUMBER</td> <td style="width: 50%; padding: 5px; text-align: center;">0</td> </tr> <tr> <td style="padding: 5px;">CONTENT</td> <td style="padding: 5px; text-align: center;">MENU</td> </tr> </table>	NUMBER	0	CONTENT	MENU		2265				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">NUMBER</td> <td style="width: 50%; padding: 5px; text-align: center;">0</td> </tr> <tr> <td style="padding: 5px;">CONTENT</td> <td style="padding: 5px; text-align: center;">MENU</td> </tr> </table>	NUMBER	0	CONTENT	MENU									
NUMBER	0												
CONTENT	MENU												
<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> Hyperlink_Information_Part </div> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="width: 30%; padding: 5px;">LINK NO.</th> <th style="width: 70%; padding: 5px;">LINK DESTINATION MATERIAL ID</th> </tr> <tr> <td style="text-align: center; padding: 5px;">0</td> <td style="padding: 5px;">NE_id=0, VE_id=0</td> </tr> </table>			LINK NO.	LINK DESTINATION MATERIAL ID	0	NE_id=0, VE_id=0	2266						
LINK NO.	LINK DESTINATION MATERIAL ID												
0	NE_id=0, VE_id=0												

FIG. 13

NE_id	2
-------	---

Time\_Event\_Part

NOT WRITTEN

Bytecode\_Part

BYTECODE NO.	BYTECODE
0	PushL0,GotoPage

Handler\_Part

HANDLER NO.	BYTECODE NO.
0	0

Graphics\_Property\_Part

GRAPHICS NO.	TYPE	COORDINATES	HANDLER NO.	INITIAL STATE
0	BUTTON	(20,60)	0	Visible

Bitmap\_Information\_Part

NUMBER	0
CONTENT	MENU

Hyperlink\_Information\_Part

LINK NO.	LINK DESTINATION MATERIAL ID
0	NE_id=0, VE_id=0

FIG. 14

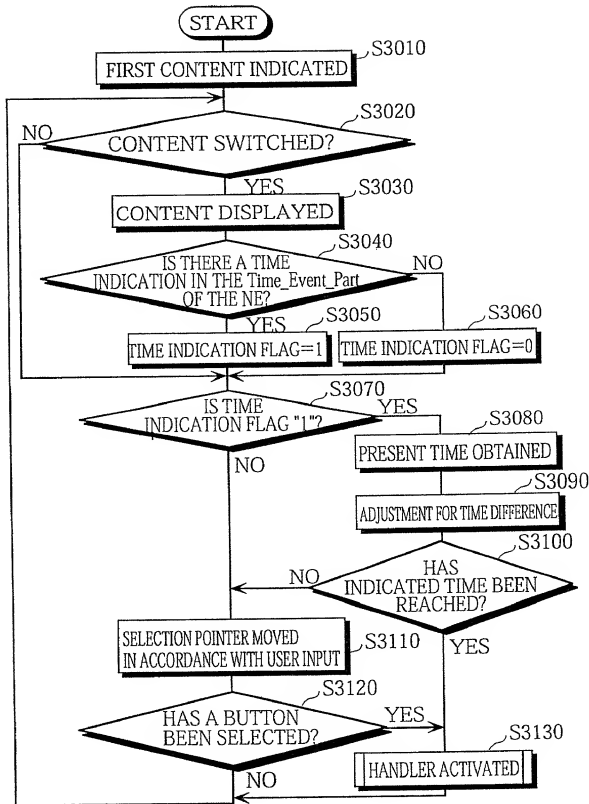


FIG. 15

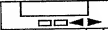
	TIME	DISPLAY SCREEN
3210	1996.9.9 14 : 57 : 00	MAIL ORDER VIDEO STEREO
3220	1996.9.9 14 : 58 : 00	VIDEO  ¥200000 MENU
3230	1996.9.9 14 : 59 : 00	MAIL ORDER VIDEO STEREO
3240	1996.9.9 15 : 00 : 00	THIS OFFER IS NO LONGER VALID

FIG. 16A

TDT

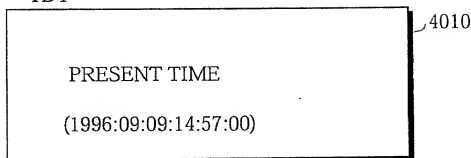


FIG. 16B

TOT

PRESENT TIME(1996:09:09:14:57:00)	
COUNTRY ID CODE (U.K.)	TIME DIFFERENCE (+ 00:00:00)
COUNTRY ID CODE (JAPAN)	TIME DIFFERENCE (+ 09:00:00)
:	:

4020



FIG. 17

NE_id	0
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Time\_Event\_Part

NOT WRITTEN

Bytecode\_Part

BYTECODE NO.	BYTECODE
0	PushL0,GotoPage
1	PushL1,GotoPage
2	PushL2,PushL1,SetGraphicVisibility, PushL0,PushL0,SetGraphicVisibility, PushL1,PushL0,SetGraphicVisibility

Handler\_Part

HANDLER NO.	SUBHANDLER NO.	VALID PERIOD	SUBHANDLER NO.	BYTECODE NO.
0	0	~1996.9.9:14:59:59	0	0
	2	1996.9.9:15:00:00~	1	1
1	1	~1996.9.9:14:59:59	2	2
	2	1996.9.9:15:00:00~		

Graphics\_Property\_Part

GRAPHICS NO.	TYPE	COORDINATES	HANDLER NO.	INITIAL STATE
0	BUTTON	(20,20)	0	Visible
1	BUTTON	(20,60)	1	Visible
2	BUTTON	( 0,20)	NONE	Invisible

Bitmap\_Information\_Part

NUMBER	0	1	2
CONTENT	VIDEO	STEREO	THIS OFFER IS NO LONGER VALID

Hyperlink\_Information\_Part

LINK NO.	LINK DESTINATION MATERIAL ID
0	NE_id=1, VE_id=1
1	NE_id=2, VE_id=2

FIG. 18

NE_id	1
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Time\_Event\_Part

NOT WRITTEN

Bytecode\_Part

BYTECODE NO.	BYTECODE
0	PushL0,GotoPage

Handler\_Part

HANDLER NO.	SUBHANDLER NO.	VALID PERIOD	SUBHANDLER NO.	BYTECODE NO.
0	0	—	0	0

Graphics\_Property\_Part

GRAPHICS NO.	TYPE	COORDINATES	HANDLER NO.	INITIAL STATE
0	BUTTON	(20,60)	0	Visible

Bitmap\_Information\_Part

NUMBER	CONTENT
0	MENU

Hyperlink\_Information\_Part

LINK NO.	LINK DESTINATION MATERIAL ID
0	NE_id=0, VE_id=0

FIG. 19

NE_id	2
-------	---

Time\_Event\_Part

NOT WRITTEN

Bytecode\_Part

BYTECODE NO.	BYTECODE
0	PushL0,GotoPage

Handler\_Part

HANDLER NO.	SUBHANDLER NO.	VALID PERIOD	SUBHANDLER NO.	BYTECODE NO.
0	0	—	0	0

Graphics\_Property\_Part

GRAPHICS NO.	TYPE	COORDINATES	HANDLER NO.	INITIAL STATE
0	BUTTON	(20,60)	0	Visible

Bitmap\_Information\_Part

NUMBER	
0	
CONTENT	
	MENU

Hyperlink\_Information\_Part

LINK NO.	LINK DESTINATION MATERIAL ID
0	NE_id=0, VE_id=0

FIG. 20

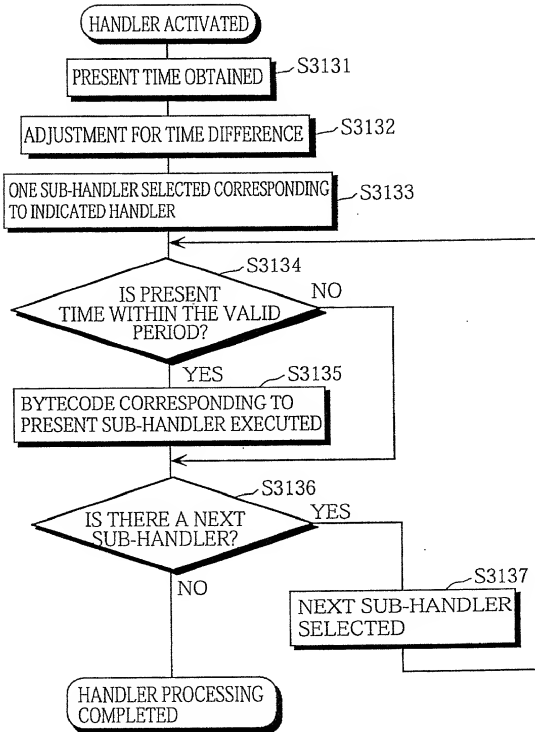


FIG. 21

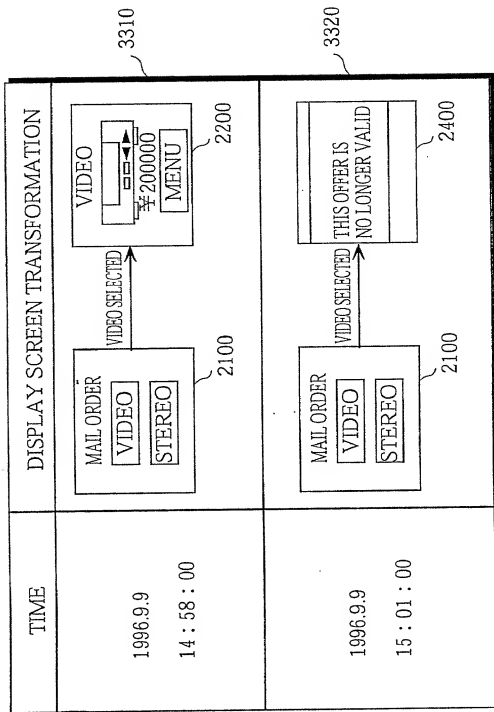


FIG. 22

NE_id	0			
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**Time\_Event\_Part**

ACTIVATE TIME	HANDLER NO.	GRAPHICS NO.
1996.9.9,15 : 00 : 00	2	0,1

**Bytecode\_Part**

BYTECODE NO.	BYTECODE
0	PushL0,GotoPage
1	PushL1,GotoPage
2	PushL2,PushL1,SetGraphicVisibility, PushL0,PushL0,SetGraphicVisibility, PushL1,PushL0,SetGraphicVisibility

**Handler\_Part**

HANDLER NO.	BYTECODE NO.
0	0
1	1
2	2

**Graphics\_Property\_Part**

GRAPHICS NO.	TYPE	COORDINATES	HANDLER NO.	INITIAL STATE
0	BUTTON	(20,20)	0	Visible
1	BUTTON	(20,60)	1	Visible
2	BUTTON	( 0,20)	NONE	Invisible

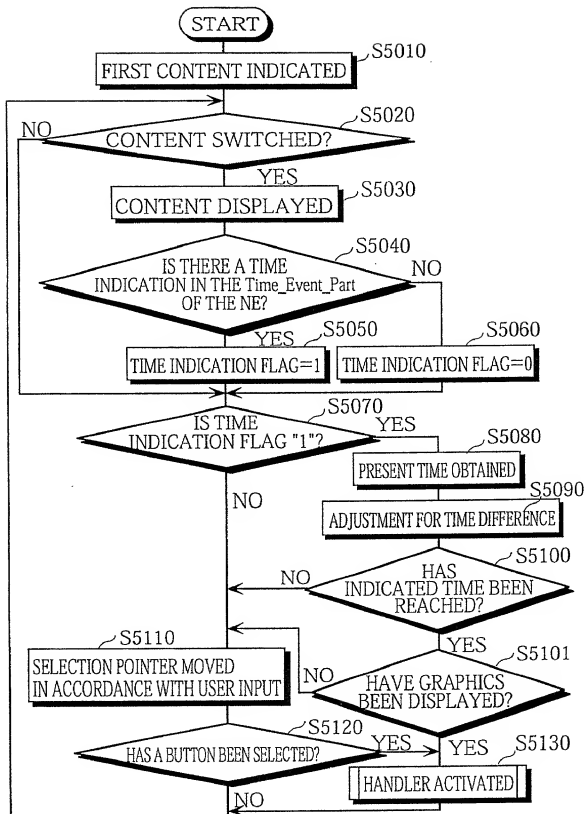
**Bitmap\_Information\_Part**

NUMBER	0	1	2
CONTENT	VIDEO	STEREO	THIS OFFER IS NO LONGER VALID

**Hyperlink\_Information\_Part**

LINK NO.	LINK DESTINATION MATERIAL ID
0	NE_id=1, VE_id=1
1	NE_id=2, VE_id=2

FIG. 23



$\mathbb{R}^n$  is a vector space over  $\mathbb{R}$  with the usual addition and scalar multiplication. The norm on  $\mathbb{R}^n$  is defined by  $\|x\| = \sqrt{x_1^2 + \dots + x_n^2}$ . The inner product on  $\mathbb{R}^n$  is defined by  $\langle x, y \rangle = x_1 y_1 + \dots + x_n y_n$ . The orthogonal group  $O(n)$  is the group of all linear transformations of  $\mathbb{R}^n$  that preserve the inner product. The special orthogonal group  $SO(n)$  is the subgroup of  $O(n)$  consisting of all rotations. The Lie algebra of  $SO(n)$  is denoted by  $\mathfrak{so}(n)$  and consists of all skew-symmetric matrices. The adjoint representation of  $SO(n)$  is denoted by  $\text{Ad}$  and maps elements of  $SO(n)$  to elements of  $\mathfrak{so}(n)$ . The Killing form on  $\mathfrak{so}(n)$  is denoted by  $B$  and is defined by  $B(X, Y) = 2\text{tr}(XY)$ . The Cartan-Killing metric on  $\mathfrak{so}(n)$  is denoted by  $\langle \cdot, \cdot \rangle$  and is defined by  $\langle X, Y \rangle = -\frac{1}{2}B(X, Y)$ . The Cartan decomposition of  $\mathfrak{so}(n)$  is denoted by  $\mathfrak{so}(n) = \mathfrak{k} \oplus \mathfrak{p}$ , where  $\mathfrak{k}$  is the Lie algebra of the maximal compact subgroup and  $\mathfrak{p}$  is the orthogonal complement of  $\mathfrak{k}$ . The Cartan involution  $\theta$  on  $\mathfrak{so}(n)$  is defined by  $\theta(X) = -X$  for  $X \in \mathfrak{k}$  and  $\theta(X) = X$  for  $X \in \mathfrak{p}$ . The Cartan subalgebra of  $\mathfrak{so}(n)$  is denoted by  $\mathfrak{h}$  and consists of all elements of  $\mathfrak{k}$  that commute with all elements of  $\mathfrak{p}$ . The root system of  $\mathfrak{so}(n)$  is denoted by  $\Phi$  and consists of all non-zero elements of  $\mathfrak{p}$  that are eigenvectors of the adjoint representation of  $\mathfrak{h}$ . The simple roots of  $\mathfrak{so}(n)$  are denoted by  $\alpha_1, \dots, \alpha_r$  and form a basis for the root system. The Cartan matrix of  $\mathfrak{so}(n)$  is denoted by  $A$  and is defined by  $A_{ij} = 2\frac{\langle \alpha_i, \alpha_j \rangle}{\langle \alpha_i, \alpha_i \rangle}$ . The Dynkin diagram of  $\mathfrak{so}(n)$  is denoted by  $D$  and consists of  $r$  nodes arranged in a circle, with edges between adjacent nodes. The Cartan decomposition of  $\mathfrak{so}(n)$  is denoted by  $\mathfrak{so}(n) = \mathfrak{k} \oplus \mathfrak{p}$ , where  $\mathfrak{k}$  is the Lie algebra of the maximal compact subgroup and  $\mathfrak{p}$  is the orthogonal complement of  $\mathfrak{k}$ . The Cartan involution  $\theta$  on  $\mathfrak{so}(n)$  is defined by  $\theta(X) = -X$  for  $X \in \mathfrak{k}$  and  $\theta(X) = X$  for  $X \in \mathfrak{p}$ . The Cartan subalgebra of  $\mathfrak{so}(n)$  is denoted by  $\mathfrak{h}$  and consists of all elements of  $\mathfrak{k}$  that commute with all elements of  $\mathfrak{p}$ . The root system of  $\mathfrak{so}(n)$  is denoted by  $\Phi$  and consists of all non-zero elements of  $\mathfrak{p}$  that are eigenvectors of the adjoint representation of  $\mathfrak{h}$ . The simple roots of  $\mathfrak{so}(n)$  are denoted by  $\alpha_1, \dots, \alpha_r$  and form a basis for the root system. The Cartan matrix of  $\mathfrak{so}(n)$  is denoted by  $A$  and is defined by  $A_{ij} = 2\frac{\langle \alpha_i, \alpha_j \rangle}{\langle \alpha_i, \alpha_i \rangle}$ . The Dynkin diagram of  $\mathfrak{so}(n)$  is denoted by  $D$  and consists of  $r$  nodes arranged in a circle, with edges between adjacent nodes.

6166



FIG. 25

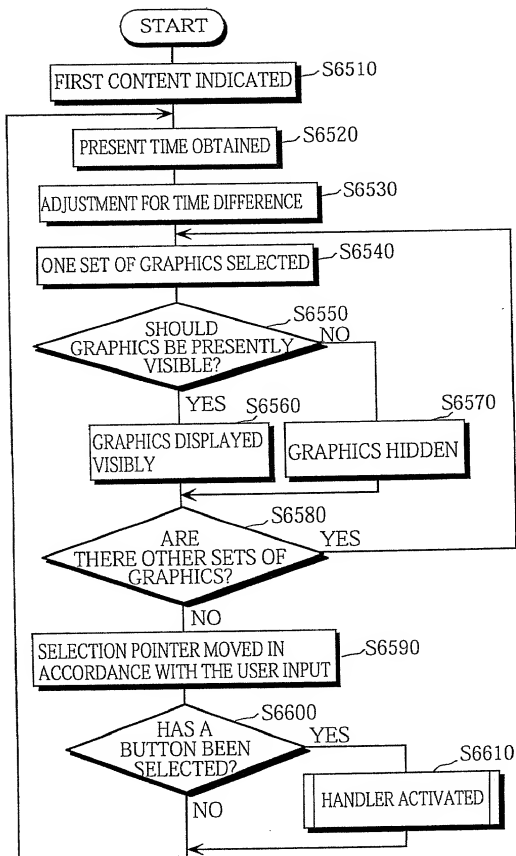


FIG. 26

TIME	DISPLAY SCREEN
<p>6810</p> <p>1996.9.9</p> <p>14 : 59 : 00</p>	<div data-bbox="567 596 746 714"> <p>MAIL ORDER</p> <p>VIDEO</p> <p>STEREO</p> </div>
<p>6820</p> <p>1996.9.9</p> <p>15 : 00 : 00</p>	<div data-bbox="567 760 746 898"> <p>THIS OFFER IS NO LONGER VALID</p> </div>

FIG. 27

NE_id	0	NE START TIME	1996.9.9.14:00:00	
-------	---	---------------	-------------------	--

Time\_Event\_Part

ACTIVATE TIME	HANDLER NO.
1996.9.9.15 : 00 : 00	2

Bytecode\_Part

BYTECODE NO.	BYTECODE
0	PushL0,GotoPage.
1	PushL1,GotoPage
2	PushL2,PushL1,SetGraphicVisibility, PushL0,PushL0,SetGraphicVisibility, PushL1,PushL0,SetGraphicVisibility

Handler\_Part

HANDLER NO.	BYTECODE NO.
0	0
1	1
2	2

Graphics\_Property\_Part

GRAPHICS NO.	TYPE	COORDINATES	HANDLER NO.	INITIAL STATE
0	BUTTON	(20,20)	0	Visible
1	BUTTON	(20,60)	1	Visible
2	BUTTON	(0,20)	NONE	Invisible

Bitmap\_Information\_Part

NUMBER	0	1	2
CONTENT	VIDEO	STEREO	THIS OFFER IS NO LONGER VALID

Hyperlink\_Information\_Part

LINK NO.	LINK DESTINATION MATERIAL ID
0	NE_id=1, VE_id=1
1	NE_id=2, VE_id=2

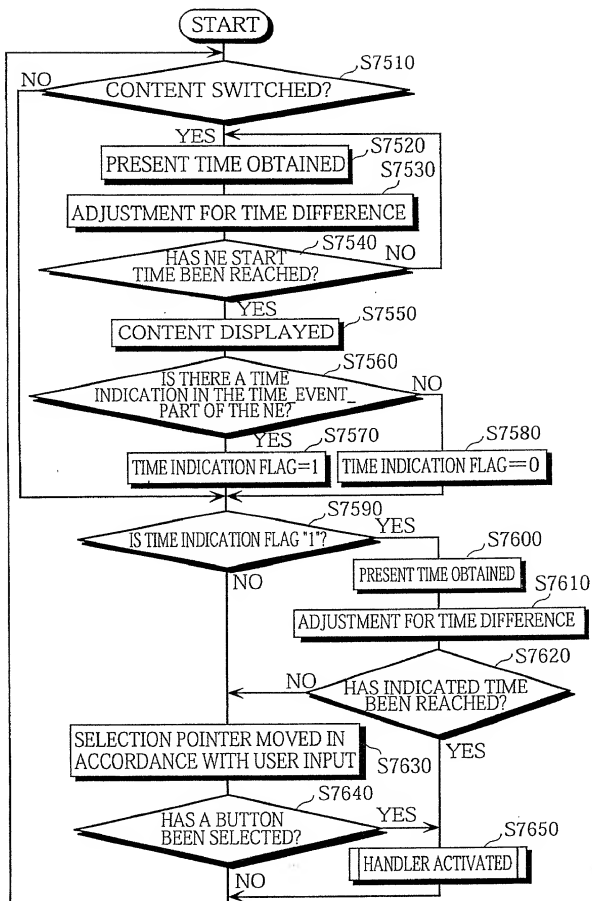
[illegible]

FIG. 29

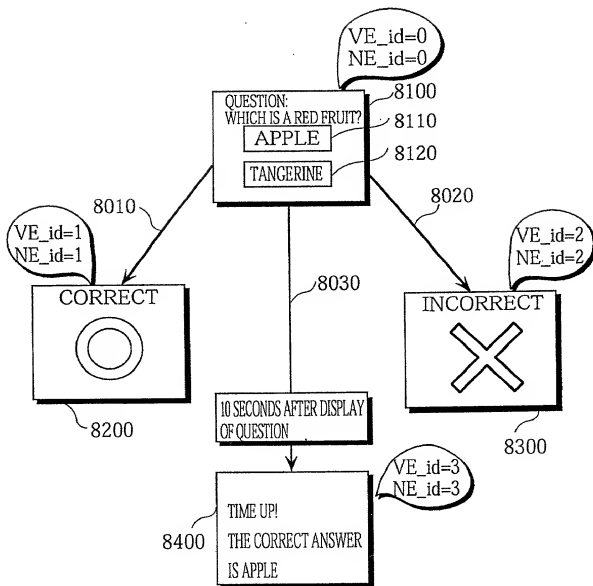


FIG. 30

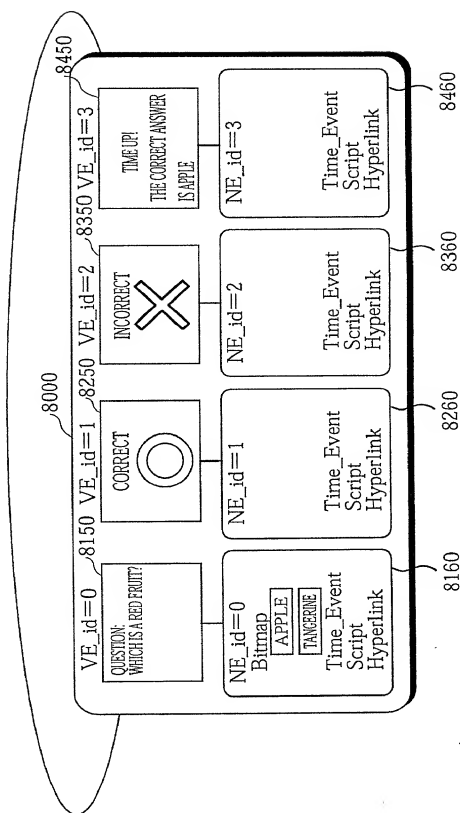


FIG. 31

NE_id	0					8160
Time_Event_Part						8161
ELAPSED TIME BEFORE ACTIVATION		HANDLER NO.				
00 : 00 : 10 : 00		2				
Bytecode_Part						8162
BYTECODE NO.		BYTECODE				
0		PushL0,GotoPage				
1		PushL1,GotoPage				
2		PushL2,GotoPage				
Handler_Part						8163
HANDLER NO.		BYTECODE NO.				
0		0				
1		1				
2		2				
Graphics_Property_Part						8164
GRAPHICS NO.	TYPE	COORDINATES	HANDLER NO.	INITIAL STATE		
0	BUTTON	(20,20)	0	Visible		
1	BUTTON	(20,60)	1	Visible		
Bitmap_Information_Part						8165
NUMBER	0	1				
CONTENT	APPLE	TANGERINE				
Hyperlink_Information_Part						8166
LINK NO.		LINK DESTINATION MATERIAL ID				
0		NE_id=1,VE_id=1				
1		NE_id=2,VE_id=2				
2		NE_id=3,VE_id=3				

FIG. 32

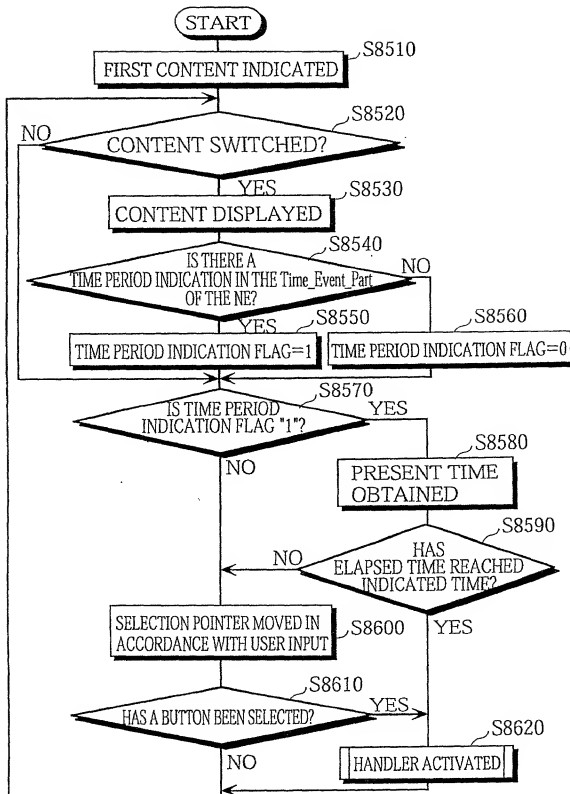




FIG. 33A


ELAPSED TIME AND OPERATION	DISPLAY SCREEN
<p>8910</p> <p>00 : 00 : 00 : 00</p>	<p>QUESTION: WHICH IS A RED FRUIT?</p> <p>APPLE</p> <p>TANGERINE</p>
<p>8920</p> <p>00 : 00 : 05 : 00 "APPLE" SELECTED</p>	<p>CORRECT</p> 

FIG. 33B

ELAPSED TIME AND OPERATION	DISPLAY SCREEN
<p>8930</p> <p>00 : 00 : 00 : 00</p>	<p>QUESTION: WHICH IS A RED FRUIT?</p> <p>APPLE</p> <p>TANGERINE</p>
<p>8940</p> <p>00 : 00 : 10 : 00</p>	<p>TIME UP!</p> <p>THE CORRECT ANSWER IS APPLE</p>

FIG. 34

DATA DISPLAY CONTROL INFORMATION EDITING APPARATUS 10000

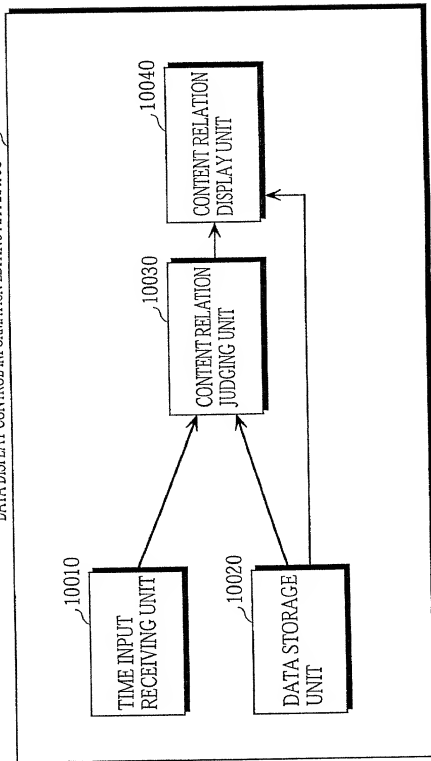


FIG. 35

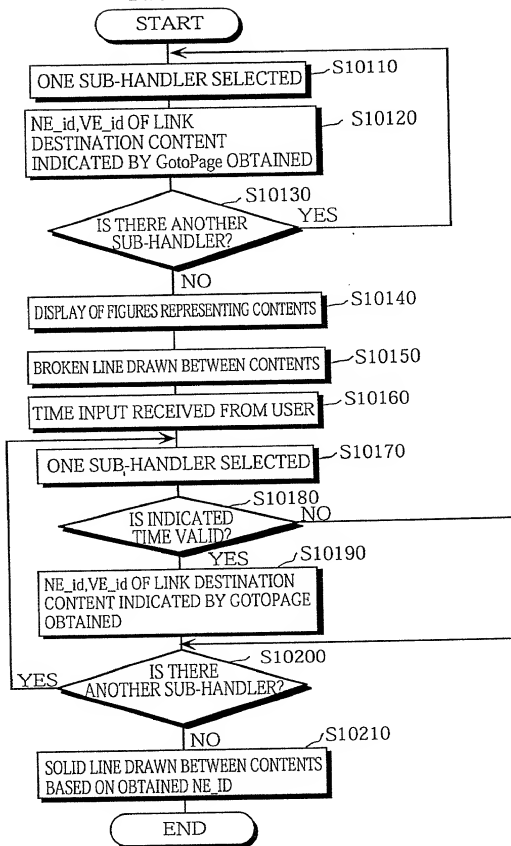


FIG. 36

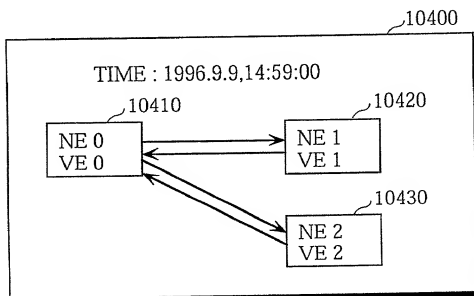
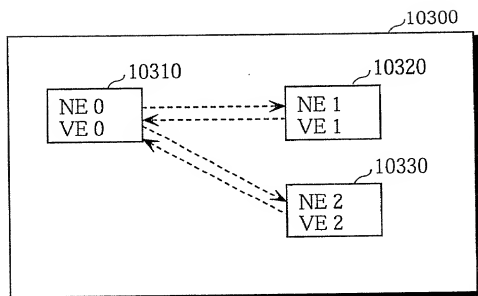


FIG. 37

DATA DISPLAY CONTROL INFORMATION EDITING APPARATUS 10500

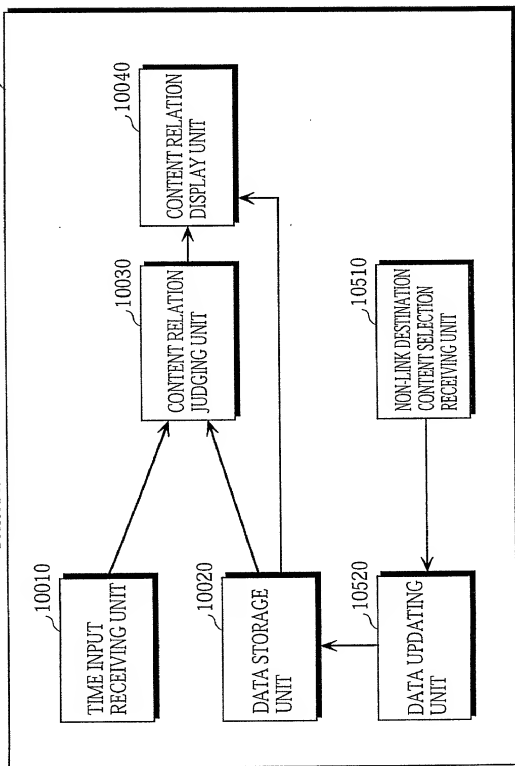
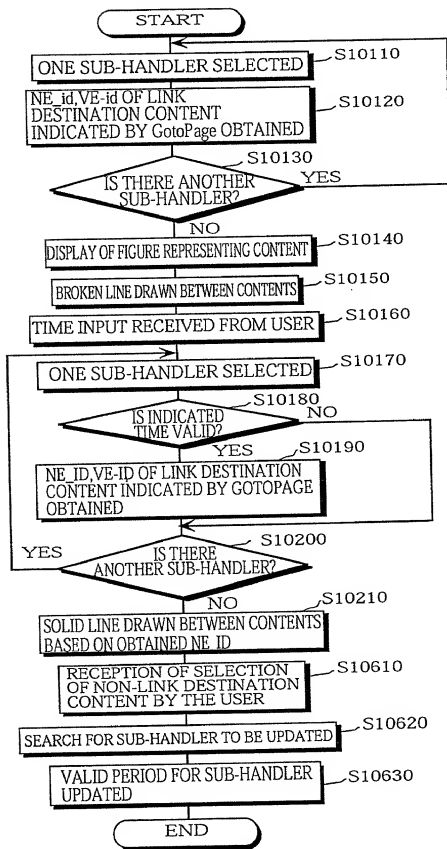


FIG. 38



COMBINED DECLARATION AND POWER OF ATTORNEY  
IN ORIGINAL APPLICATION

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name; that I verily believe that I am the original, first and sole inventor (if only one name is listed below) or joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought, entitled:

DATA DISPLAY CONTROL APPARATUS FOR CONTROLLING THE DISPLAY OF DATA,  
A DATA TRANSMISSION APPARATUS FOR TRANSMITTING INFORMATION WHICH  
IS USED TO CONTROL THE DISPLAY OF DATA, AND A DATA DISPLAY CONTROL  
INFORMATION EDITING APPARATUS FOR EDITING INFORMATION USED TO  
CONTROL THE DISPLAY OF DATA

the specification of which:

(check one)

☐ is attached hereto.

☒ was filed on September 11, 1997 as

Application Serial No. 08/928,010

and was amended on \_\_\_\_\_

(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56 (a).

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Foreign Application(s), if any, for Patent or Inventor's Certificate Filed Within 12 Months Prior to the Filing Date of This Application:

Country	Application No.	Date of Filing (Day, Month, Year)	Priority Claimed Under 35 U.S.C. 119
<u>Japan</u>	<u>8-240297</u>	<u>11/September/1996</u>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
_____	_____	_____	Yes _____ No _____
_____	_____	_____	Yes _____ No _____
_____	_____	_____	Yes _____ No _____
_____	_____	_____	Yes _____ No _____

All Foreign Applications, if any, for Patent or Inventor's Certificate Filed More Than 12 Months Prior to the Filing Date of This Application:

Country	Application No.	Date of Filing
_____	_____	_____
_____	_____	_____
_____	_____	_____

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(1) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

(Application Serial No.)

(Filing Date)

(Status)

(patented, pending, abandoned)

(Application Serial No.)

(Filing Date)

(Status)

(patented, pending, abandoned)